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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,231	09/07/2005	Karlheinz Mayer	2732-155	1640
6449 7590 02/12/2008 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005				
EXAMINER KIM, AHSHIK				
ART UNIT 2876		PAPER NUMBER		
NOTIFICATION DATE 02/12/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

# Office Action Summary

**Application No.**

10/522,231

**Applicant(s)**

MAYER ET AL.

**Examiner**

Ahshik Kim

**Art Unit**

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/08/07 (Amendment).  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-32 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/CDC)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Amendment***

1. Receipt is acknowledged of the amendment filed on November 8, 2007. Currently claims  
5 1-32 remain in the examination.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in  
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are  
such that the subject matter as a whole would have been obvious at the time the invention was made to a person  
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the  
manner in which the invention was made.

- 15 3. This application currently names joint inventors. In considering patentability of the  
claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various  
claims was commonly owned at the time any inventions covered therein were made absent any  
evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out  
20 the inventor and invention dates of each claim that was not commonly owned at the time a later  
invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)  
and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-9 16, 17, 19-22, 24-28, 31, and 32 are rejected under 35 U.S.C. 103(a) as being  
unpatentable over by Hoshino et al. (US 6,301,047, hereinafter "Hoshino") in view of Shiozawa  
25 et al. (US 6,628,439, hereinafter "Shiozawa").

Re claims 1, 7, 19-21, and 26, Hoshino discloses a method and apparatus for testing authenticity of security element such as security notes or valuable documents (col. 1, lines 5) on the basis of liquid crystal layers (col. 1, lines 14+), the security element having at least one marking 1 with circularly polarizing material (col. 1, lines 20+; col. 2, lines 39-53) comprising  
5 the steps filtering the light impinging on the security element by means of a first circular polarizer 13 (see figure 3; col. 4, lines 48+); filtering the light impinging on the security element by means of a second polarizer 16 (col. 6, lines 51+); determining the image from both light receiving unit 12 and 12b (see figures 5 and 6) and deriving a statement about the authenticity of the security element from the analysis of the image (col. 6, lines 29-50).

10 Hoshino, however, fails to specifically teach or fairly suggest that difference of intensity values obtained from the two light receiving devices is used in determining authenticity of the security element.

Shiozawa discloses authenticity testing system (see abstract; col. 1, lines 7-12; col. 1, lines 16+) wherein an area in an article, which is comprised of liquid crystal material (col. 1, line  
15 21) is illuminated, and the reflected lights which are right-handedly polarized and left-handedly polarized (col. 2, lines 44+). The intensity of the light captured in the detectors are then compared and the light intensity difference is used in determining authenticity of the item (col. 4, line 48 - col. 5, line 10). The article can be any item with importance such as currency, securities, betting tickets, etc.

20 In view of Shiozawa's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to further incorporate light intensity comparison method to the teachings of Hoshino in order to improve the authenticity testing regime. Modified/improved

method would be used in detecting hologram forgery which is becoming more skillful and technical. Both Hoshino and Shiozawa are in the similar (if not the same) art of authenticity checking of an article. Accordingly, it is well within one ordinary skill in the art to employ the teachings of the other to improve overall testing criteria.

5           Re claim 2, the first and second circular polarizer are right-handed polarizer and left-handed polarizer (col. 5, lines 35-55).

Re claims 3 and 22, the light source 11 provides illumination during the image recordings (see figures 1 and 3; col. 4, lines 44+).

Re claims 4, 5, 24, 25, and 27, still relying on figure 3, the respective circular polarizers  
10 are disposed between the security element 1 and light receiving unit 12a and 12b (see figure 3). They are also between the light source 11 and the security element 1.

Re claim 8, the reflected lights are received at the light receiving unit 22a and 22b simultaneously (col. 11, lines 10-24).

Re claims 9 and 28, the identification medium provides effects of beam splitter (col. 15,  
15 lines 53+) and adoption of beam splitter is well contemplated (col. 1, lines 38-59) if needed.

Re claim 31, as shown in figures 17 and 19, the target 51 can be arranged in checkerboard manner (col. 11, lines 25+; col. 12, lines 44+), and the scanning direction must be aligned with the target in order to capture impinging light beam.

Re claim 32, Hoshino also discloses uses of pass-band filters (col. 1, lines 39+).  
20 Hoshino (US 6,061,122) which is incorporated in Hoshino discloses use of color filter (col. 3, lines 11-21).

5. Claims 10-14, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino et al. (US 6,301,047) as modified by Shiozawa et al. (US 6,628,439) as applied to claims 1 and 19 above, and further in view of Hara et al. (US 5,815,598, hereinafter "Hara").

The teachings of Hoshino as modified by Shiozawa have been discussed above.

5 Hoshino/Shiozawa fails to specifically teach or fairly suggest that the device is a video camera or a digital camera. Hoshino also fails to disclose a display device and image comparison process as recited in claims 11-13.

Hara discloses an identification apparatus wherein the captured image is compared against the reference image (see abstract). The apparatus further comprised of a CCD camera  
10 130 (see figure 11; col. 16, lines 57+). In comparing the captured image and reference image, the images are displayed on display means 80a (col. 17, lines 49-59) in side-by-side manner as shown in figure 8(a) (col. 11, lines 34+).

Hoshino numerously stated the apparatus 10 to be a device. The device obviously is comprised of optical components, and image capturing components and processor to process  
15 digital image captured. If the device were not a video camera or digital camera, it would have been obvious to an ordinary skill in the art at the time the invention was made to use well known image capturing device such as CCD camera as disclosed in Hara.

6. Claims 15 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino et al. (US 6,301,047) as modified by Shiozawa et al. (US 6,628,439) as applied to  
20 claims 1 and 19 above, and further in view of Kurokawa et al. (US 6,729,541, hereinafter "Kurokawa").

The teachings of Hoshino as modified by Shiozawa have been discussed above.

Hoshino/Shiozawa is silent about the light source 11 which provides illumination toward the target.

Kurokawa discloses information reading apparatus which reads information from the medium such as cards (see abstract) wherein the apparatus further comprises a light guide 121  
5 made of optical fiber or waveguide which provides illumination (col. 17, line 65 – col. 18, line 10).

It is the Examiner's position that light source 11 of Hoshino and light guide 121 of Kurokawa are functionally equivalent means. Both provide illumination in order for the apparatus to read information from the target. Accordingly, using one in place of the other  
10 would not produce unexpected results.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino et al. (US 6,301,047) in view of Shiozawa et al. (US 6,628,439).

The teachings of Hoshino as modified by Shiozawa have been discussed above. Hoshino further discloses that the security medium can be applied to objects such as passports, cards,  
15 security notes, gift certificates, pictures, public transportation tickets, and betting tickets, etc. etc. (col. 1, lines 5-12). It can be used in any embodiment where verification of authenticity is warranted. It is the Examiner's position that the marking can certainly be applied to a deposit token.

#### ***Response to Arguments***

8. Applicants response including amended claims and remarks filed on November 8, 2007 have been carefully reviewed and considered. Examiner acknowledges Applicant's interest to

expedite the prosecution of the application. Amended claims have been accorded a careful review and consideration in light of Applicant's interest. However, Examiner found a reference which discloses the subject matter recited in the amended claims.

Applicant's arguments with respect to the amended claims further clarifying the claims  
5 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

10 Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period  
15 will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20 Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (571)272-2393. The examiner can normally be reached between the hours of 8:00 AM to 5:00 PM Monday thru Friday.



Art Unit: 2876

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571)272-2398. The fax phone number for this Group is (571)273-8300.

5 Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

10 *All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

15 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available for Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions or access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

25 /Ahshik Kim/

Primary Examiner  
Art Unit 2876  
January 30, 2008